
SCIENCE STANDARD 2

All students will develop problem-solving, decision-making, and inquiry skills, reflected by formulating usable questions and hypotheses, planning experiments, conducting systematic observations, interpreting and analyzing data, drawing conclusions, and communicating results.

While no attempt has been made to rank New Jersey's *Science Standards* in order of importance, most science educators would agree that a paramount goal of any science program would be the development of those skills used by scientists as they conduct investigations and share the results of those investigations with others.

To implement this standard, students must be exposed early on to science as a “hands-on, minds-on” process, encouraged to explore the world around them with all of their senses and a curious, open mind. As students grow, observation and exploration become the basis for planning and conducting experiments. These activities, in turn, lead to an understanding of the role of variables and the methods used to analyze and interpret data. At every age, students are taught how to organize and present their findings. The ultimate intent of this process standard is to produce scientifically literate graduates capable of thoughtful analysis and informed decision making in the workplace, supermarket, or voting booth.

Within the *New Jersey Science Curriculum Framework*, it will be readily apparent that, without exception, the sample learning activities presented reflect and support the intent of this all-important science standard.

It would be impossible today for educators to find a science program or textbook that does not stress the importance of the skills addressed by this standard. Both the *National Science Education Standards* and *Benchmarks for Scientific Literacy* devote several chapters to their development. We urge readers of this *Framework* to refer to either or both of these excellent resources for further discussion.